TWO NEW SPECIES OF CARTHASIS (HEMIPTERA, NABIDAE).1

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Carthasis gracilis n. sp.

Elongate, flavo-testaceous, marked with reddish. Head flavo-testaceous to rufescent, transversely grooved between eyes, the part anterior to groove shiny and sparsely pubescent, that posterior to groove rugulose and non-pubescent. Gula with four prominent seta-like spines. Eyes large, red, coarsely granular. First antennal segment clothed with a few scattered fine hairs, its length equal to or slightly less than that of pronotum. Rostral segment I as broad as long, faintly tinged with red; II slightly longer than pre-ocular part of head; III one-third shorter than II; IV one-fifth shorter than III; II and III beset with a few long, fine hairs.

Pronotum with the broad, median, reddish to dusky stripe greatly and angularly widened and also tending to become more dusky on posterior lobe. Scutellum brownish, tinged with red. Hemielytra smooth, shiny, strongly constricted at about the basal one-fourth; costal margin before the constriction with a few long hairs; a broad stripe on clavus bordering the scutellum rufous to fuscous; a marginal and a sub-marginal streak on claval commissure and an interrupted streak along inner margin of corium extending posteriorly and expanding at the inner angle and before the apex into two irregular patches, crimson. Membrane fuscous with a large area opposite apex of corium lighter, its apex reaching slightly beyond tip of abdomen. Legs flavo-testaceous; anterior femora armed beneath with short teeth interspersed with a few long spines and with long, bristle-like

Venter pale stramineous, smooth, shiny, beset with a few long hairs. Genital segment large, pubescent, more or less fuscous. Clasper with very short stem and a more or less circular blade that forks at its apex into an upward and a downward projecting hook. Length 3.3-3.5 mm.; width .55

Holotype: Male, El Fraile, P. de Guanahacabibes, Cuba, April 6, 1924, S. C. Bruner collector. Paratype: Cape San Antonio, Cuba, April 13, 1924, S. C. Bruner collector.

¹ Contribution from the Department of Zoology and Entomology, Iowa State College.

Carthasis distinctus n. sp.

Sub-elongate, testaceous to flavo-testaceous, marked with reddish. Head rufescent above, darker posterior to the inter-ocular groove, finely pubescent. Gula provided with four prominent seta-like spines. Eyes large, red, coarsely granular. Antennae testaceous, thickly pubescent; segment I thick, distinctly shorter than pronotum, II one-fourth longer than I, III equal to I, IV two-thirds longer than III. Rostrum testaceous; segment I reddish, as broad as long; II and head before eyes sub-equal in length; III one-third shorter than II; IV slightly shorter than III, piceous at the

tip; II and III beset with a few long, fine hairs.

Pronotum strongly constricted behind the middle, with wide apical collar, testaceous to flavo-testaceous with two more or less broad stripes on either side of median line (sometimes converging anteriorly) red. Scutellum reddish brown to dark fuscous, the apex lighter. Hemielytra reaching slightly beyond tip of abdomen, moderately constricted before the middle, costal margin before the constriction with a few scattered, short, fine hairs. Clavus rufous, the outer margin lighter; corium flavo-testaceous, a large patch extending along inner angle and on to membrane fuliginous to fuscous, a patch near the middle and a similar one near the apex connected by an interrupted streak along the inner margin crimson. Membrane without distinct veins, smoky brown with lighter margin. Legs testaceous; anterior femora short, thick, slightly darkened before apex, armed beneath with short teeth, interspersed with a few longer spines and slender bristle-like setae; anterior tibiae armed within with slender spines. Venter flavo-testaceous, sparsely pubescent, provided with a few, long, slender hairs. Length 3.5-4 mm.; width .66-.82 mm.

Male: Smaller. Abdomen reddish above on apical onethird, produced into short, backward and downward projecting, circular flaps on the third, fourth and fifth visible ventral segments. Genital segments prominent; clasper

large, distinctive.

Female: Slightly larger and more robust. Genital segments large, ovipositor prominent.

Holotype: Male, Santiago de las Vegas, Cuba, Dec. 26, 1922, S. C. Bruner collector. Allotype: Female, Santiago de las Vegas, Cuba, Sept. 19, 1923, S. C. Bruner collector. Paratypes: Female,

Santiago de las Vegas, Cuba, Sept. 5, 1923, S. C. Bruner collector, and Palmira, Cuba, Aug. 20, 1924, C. H. Ballou collector.

The above two species can be readily separated from each other by the more slender form and the median longitudinal reddish pronotal stripe of *gracilis*, and moreover by the large clasper of *distinctus*. This clasper is very distinctive, reminding one of the clasper of a *Nabis*, and will separate the species at once from all other known species of *Carthasis*.

C. distinctus shows slight color variation, particularly as to the amount of red on the scutellum. Both species have been confused in collections with C. rufonotatus Champion and C. minor Reuter but are easily separated from either of these, distinctus by the shape of the male clasper, gracilis by its more slender, elongate form. Through the kindness of Mr. E. P. Van Duzee and Dr. C. J. Drake, the writer has been able to examine a topotypical specimen of C. minor Reuter. C. minor is quite distinct, and is not synonymous with C. rufonotatus Champ. as suggested by Barber, Jour. N. Y. Ent. Soc., XXIV, 1916, p. 308. According to Mr. W. E. China, of the British Museum, who has kindly compared specimens of C. decoratus Uhler (= C. contrarius Reut.) from Mississippi with Champion's types, C. decoratus Uhler, while very closely related to C. rufonotatus Champion, is nevertheless specifically distinct.